Exhibit E to the Declaration of Imran A. Khaliq In Support Of Visto's Opening Claim Construction Brief Under P.R. 4-5(a)

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF TEXAS

MARSHALL DIVISION

VISTO CORPORATION	§	
v.	§	No. 2:03-CV-333-TJW
SEVEN NETWORKS, INC.	§	

ORDER

1. Introduction.

Visto Corporation ("Visto") asserts that Seven Networks, Inc. ("Seven") infringes various claims of four United States Patents. The parties filed briefs in support of their respective claim construction positions, and the court held a *Markman* hearing. After considering the record, the arguments of counsel, and the applicable law, the court issues this opinion to construe the claims of the various patents in suit.

2. Description of the Technology.

Visto asserts claims from four patents, all of which are related to data synchronization methods and systems. To understand the claim terms and the parties' disputes, an examination of the technology is helpful. The court will first discuss the '192 and the '131 patents. Then, the court will examine the '221 patent. Finally, the court will address the '708 patent.

Two of the patents, the '192 and the '131, are entitled "System and Method for Securely Synchronizing Multiple Copies of a Workspace Element in a Network." The '131 Patent is a continuation of the application which led to the issuance of the '192 patent, and the two patents have

very similar specifications. In the specifications, the Summary of the Invention states that the invention "provides a system and method for synchronizing multiple copies of a workspace element in a secure network environment." *See* '192 Patent, Col. 1, ll. 52-54. The secure network environment includes a global server connected to multiple clients. *Id.* at ll. 54-55. Clients using the system and method can automatically synchronize workspace data between multiple sites independent of whether the sites are protected by site firewalls. *Id*. at ll. 56-59.

According to the patents, the system includes a general synchronization module at the client site for operating within a first firewall and for examining first version information to determine whether a first workspace element has been modified. The system further includes a synchronization agent at the global server for operating outside the first firewall and for forwarding to the general synchronization module second version information which indicates whether an independently modifiable copy of the first workspace element has been modified. The system includes means for generating a preferred version from the first workspace element and from the copy by comparing the first version information and the second version information, and means for storing the preferred version at the first store and at the second store. *Id*. at ll. 60-67; Col. 2, ll. 1-15.

Figure 1 depicts an overall system and includes a remote terminal linked to a global server protected by a global firewall. The global server, in turn, is linked via a communications channel to a corporate LAN protected by a corporate firewall. One copy of workspace data, such as e-mail information, file information, and calendar information, is stored on the global server and may be modified through the remote terminal by accessing the global server. The global server stores version information which indicates the date and time that the workspace data has been modified.

Figure 3 of the patent depicts a desktop computer on the LAN, with workspace data (called

"user data" in the drawing) as well as corresponding version information. In the drawing, the version information is depicted as a component of the user data stored in memory. The computer includes a base system 190 loaded into RAM along with the operating system and the desktop service engine. Figure 4 describes the base system as including various software modules. The base system includes a communications module for communicating through the communications interface shown in Figure 3. The base system also includes a user interface module with routines for communicating with a user such as through a graphical user interface. A locator module is also a component of the base system. That module includes code for determining the location in memory of workspace elements (subsets of workspace data).

The data synchronization process is initiated by the synchronization-start module. The patents explain, through their descriptions of the preferred embodiment, that synchronization may occur at predetermined times, such as start-up, shut-down, or timed intervals. The process begins when the general synchronization module issues a request from inside the LAN to a synchronization agent on the global server outside the LAN. The synchronization agent examines version information of an independently modifiable copy of workspace data stored on the global server and forwards back to the general synchronization module inside the LAN the version information of that data determined to be modified after the last synchronization. The general synchronization module has routines for examining version information from the workspace data stored inside the LAN and comparing it to the version information forwarded by the synchronization agent to determine, ultimately, a preferred version of the data. The software has routines when then store the preferred version in memory in both locations.

To handle the situation where both the version information stored on the LAN and the

independently modifiable copy of the version information stored on the global server have been modified since the last synchronization sequence, the base system includes a content-based synchronization module. This module includes routines which may, for example, prompt the user to select a preferred version, integrate the content of both changes, or store both versions at both memory locations.

The '192 and the '131 patents refer to a global server protected by a global firewall. The global server stores an independently modifiable copy of workspace data. In the invention described in the '221 patent, a user can gain secure access from a remote terminal to a global server using any terminal coupled through a communications channel (such as the Internet) to the global server. The global server, in turn, is coupled through a communications channel to a LAN.

In the description of the preferred embodiment of the '221 patent, a remote user seeks to access a service available on the global server. The global server might provide, for example, an e-mail service accessible from a remote terminal located outside the LAN. To access the e-mail service, the remote user initiates a communications link with the global server. The server downloads a security applet to the remote terminal.[1] '221 Patent, Col. 8, ll. 47-49. The applet polls the remote user for information and responds back to the global server, which examines the response and uses the information to identify and authenticate the user. *Id.* at 50-54. Once the user is "in," so-to-speak, he or she may then securely access the services provided on the global server. Depending on the level of security clearance enjoyed by the remote user, the system also describes an optional procedure for using the global server as a proxy to access the various services.

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[1] An applet is a small, self-contained program designed to be executed from within another application.

The global server incorporates a translator to aid in synchronizing multiple copies of workspace data. The patent refers to the translator as a "global translator." By using the global translator, the global server is able to store certain workspace data in a "global format" and may also determine the differences between workspace data stored on the LAN and the data stored in memory on a remote access device, such as a smart phone. Using the synchronization routines provided by software, clients on the system are able to synchronize data maintained on the remote device, the global server and the storage on the LAN.

As indicated, the global server described in the '221 patent refers to a global translator. The invention claimed by the '708 patent involves a translator used to maintain data consistency when a system synchronizes data stored in different formats at different locations. In the Background of the Invention, the inventors observe that data consistency problems may arise when using application programs from different vendors. A user who uses the Netscape Navigator browser at home, but the Internet Explorer browser at work, may have bookmarks saved in two different formats. Because the programs store the bookmarks in different formats and in different folders, the user runs the risk of having inconsistent bookmarks at each location. The invention of the '708 patent describes a global translator used to maintain data consistency when workspace data is stored in different formats.

In the preferred embodiment, workspace data may be stored in a corporate LAN in Format A. Workspace data may also be stored in Format B on a remote terminal. '708 Patent, Fig. 1, Col. 3, ll. 29-47.[2] The remote terminal is coupled through a communications channel to a global server,

[2] The patent makes clear also that one of skill in the art would understand that each different type of workspace data (bookmarks, emails, documents, etc.) could be maintained in a different format in each of the locations. '708 Patent, ll. 36-41.

which, in turn, is coupled through a communications channel to the LAN.

The global server maintains a copy of workspace data in a "global format," which is selected to be easily translatable by the translator to and from Format A and to and from Format B. The global translator incorporates all of the information needed by both formats (Format A and Format B) to create the global format. For example, if a bookmark in Format A needs elements X, Y, and Z, and a bookmark in Format B needs elements W, X, and Y, then the global translator incorporates all four elements (W, X, Y, and Z) to create a bookmark in the global format. In addition, the global translator incorporates into the global format of the workspace element (in this case, the bookmark) all of the information needed by the synchronization means such as the last modified date.[3]

As illustrated in the flowchart of Figure 7, the process begins when a user selects a workspace element of workspace data to synchronize. The locator modules determine the memory location of the workspace elements in Format A, Format B and the global format. The general synchronization modules in the base system on the LAN and on the global server determine, by comparing the last date and type of modification with the last synchronization signature, whether any workspace elements stored in either location have been modified. Working in conjunction with the base systems and synchronization modules of the remote device and the base system and synchronization module on the LAN, the global translator is able to translate the updated versions into the formats used by the remote device and on the LAN. The system then stores the updated information at both locations, as well as in the global format on the global server. By doing so, the

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[3] Thus, as illustrated in Figure 6 of the patent, a bookmark in the global format includes a user identification, an entry ID, a parent ID, a folder ID flag, a name, a description, the Uniform Resource Locator, the position, a deleted ID flag, a last modified date, a created date, and a separation ID flag.

invention described by the '708 patent maintains data consistency when synchronizing multiple versions of workspace data maintained in different locations in different formats.

3. Legal Principles Applicable to Claim Construction.

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments

appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

To assess the ordinary meaning of terms used in a patent claim, a court may properly rely on dictionary definitions. The Federal Circuit has noted that "[i]t has long been recognized in the precedent of our predecessor court, the Court of Customs and Patent Appeals, that dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meaning of claim terms." *Texas Digital Sys,. Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002). The court reasoned that such sources are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. *Id.* at 1202-03. According to the court, dictionaries, encyclopedias, and treatises "constitute unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation." *Id.* at 1203. Bearing these standards in mind, the court now turns to the task of construing the claims in this case.

4. Discussion.

At the outset, the addresses Seven's argument that the inventions described in the patents are limited to the context advocated in the briefs and at oral argument. Seven argues that the patents in suit contain an explicit disclaimer of systems and methods that do not use a "global server." Seven therefore urges that, despite the language of several of the claims, a global server limitation pervades every claim. According to Seven, systems not incorporating a global server are outside the reach of any of the patents. As will be demonstrated, this argument is undermined by the plain language of

the claims, when read in light of the patent specifications and the prosecution history. The most important piece of prosecution history involves the re-examination proceedings currently underway to which both parties alluded to at the *Markman* hearing. That re-examination involves the claims of the '192 patent.

In any claim construction endeavor, the court must begin with the plain language of the claims. In this case, the language of the claims counsels against Seven's attempt to read in a global server limitation because some of the independent claims expressly require a global server and others do not. In particular, the two independent claims of the '221 patent require a global server. *See* '221 Patent, claims 1 and 8. At the same time, none of the independent claims of the '708 patent recites the limitation of a global server, although the specification repeatedly refers to a global server. The claims of the '131 patent also do not appear to require a global server, although the specification of that patent is replete with references to an environment which incorporates a global server. Finally, as issued, certain independent claims of the '192 patent do not require the presence of a global server, *e.g.* claim 1, but others, such as dependent claim 2, expressly require the presence of a global server. '192 patent, claim 2 (claiming "[t]he method of claim 1 wherein the second store is on a global server outside the firewall and which is protected by a global firewall."). As a matter of claim construction law, the doctrine of claim differentiation normally suggests that limitations stated in dependent claims are not to be incorporated into independent claims from which they depend. *Karlin Technology Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 972-73 (Fed. Cir. 1999). The language of the claims therefore cuts against Seven's argument.

Nevertheless, reading the '708 and the '131 patents in isolation, it could be argued that the statements made in the Summary of Invention portions of the patents implicitly require a global

server in all embodiments. A narrow reading of the patents might lead one to conclude that the invention provides a system and method for using a global translator *only* in a secure network environment that *must* include a *global server* connected to multiple clients. *See* '708 Patent, Col. 1, ll. 59-63.[4] On the other hand, a broader reading of the patents suggests that the setting described in the patents (a secure network environment which includes a global server) is illustrative only and that the inventions described in the claims might have applications in other settings, limited only by the language of the claims. To resolve any ambiguity, the court has considered the prosecution history, including the proceedings involving the re-examination of the '192 patent. These proceedings (at least as conducted so far), coupled with the language of the claims, resolve any ambiguity.

To understand why the prosecution history relating to the reexamination proceedings involving the '192 patent is relevant, one must remember that the '192 patent and the '131 patent have very similar specifications. Dependent claim 2 of the '192 patent, as originally issued, required a global server. Several others, including independent claim 1, did not. One would therefore expect if the specification of the '131 patent reflected an intent to incorporate the implicit limitation of a global server into all of the claims, then the same might be said in the context of the '192 patent. That is not the case.

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[4] The cited portion of the patent states in full:

> The present invention provides a method for using a global translator to synchronize multiple copies of a workspace element in a secure network environment. The secure network environment includes a global server connected to multiple clients.

'708 Patent, Col. 1, ll. 59-63.

During the re-examination proceedings, the examiner recently rejected claims 1, 9-11, and 20-25 as being unpatentable over the Wright and Hawkins references. The examiner has indicated, however, that claims 2-8 and 12-19 of the '192 patent are allowable if the patentee re-writes those claims in independent form to include all of the limitations of the base claim and any intervening claims. This determination is important because dependent claim 2 is now allowable. That claim explicitly requires the limitation of a global server. At the same time, however, dependent claim 3 also claims allowable subject matter. That claim does not explicitly require a global server. Several of the other dependent claims now determined to be allowable also do not recite the limitation of a global server. *See, e.g.*, '192 Patent, claims 4, 5, 6, 7, 8, 14, 15, 16,17, and 18. The examiner's reasons for allowance do not indicate that the claims were allowed because they were limited to environments which included a global server.[5] In the court's view, this determination is highly relevant to the resolution of this dispute. The re-examination history indicates that the presence of a global server is not required for patentability. The doctrine of claim differentiation indicates that the global server is not an implicit limitation in all of the claims. Under these circumstances, the court rejects Seven's argument on this issue and turns to the disputed terms of the four patents in suit.

A. Communications Channel

The parties first dispute the meaning of the term "communications channel," used in claims 5, 7, and 8 of the '708 patent. Visto proposes the term means "a path or link by which information

[5] The examiner's reasons for allowance indicate that the prior art of record fails to teach or suggest the generation of first and second examination results and the generation of a preferred version based on the examination results combined with the comparison of the first version information against a date and time of last synchronization.

is passed between two locations. A communications channel can be a physical or wireless link." Seven suggests that the term means "a path or link by which information is passed between a remote computer terminal and a global server (i.e. second store) or between the global server and a first store within the firewall-protected corporate LAN. A communications channel may be a physical or wireless link."

The court adopts Visto's proposed definition, with slight modifications. As the parties' proposals suggest, a common area of disagreement which pervades the claim construction briefing is whether the inventions are limited to the preferred embodiments described in the specification. Seven's proposed definition, to illustrate, incorporates the limitations of a "global server" and a "firewall-protected corporate LAN." Seven thus urges that the patentee either explicitly or implicitly incorporated these requirements into the patents. The court rejects these arguments. The court defines "communications channel" to mean "a medium for transferring information. A communications channel can be a physical or wireless link."

B. Communications Module

Visto proposes that the term "communications module," as used in claim 11 of the 192 patent, means "software routines or code that perform the task of communicating." Seven urges that the term means "a computer software module having routines for compressing data and communicating with a synchronization agent on a global server." Again, Seven has incorporated the limitations of a synchronization agent and a global server into its definition of communications module despite the fact that the claim language supports a broader meaning. Seven also asserts that the inventors defined this term by implication by referring to the communications module as having routines for compressing data. Definition by implication is a tough climb. Seven has not persuaded

the court that the "communications modules" referenced in the claims necessarily include routines for compressing data as described in the description of the preferred embodiment. The court therefore adopts Visto's proposed construction of this term. "Communications module" means "software routines or code that perform the task of communicating."

C. Differences

Visto proposes the term "differences, " in the '221 patent, means "one or more distinctions between information or values contained in sets of data." Seven argues that the term means "a plurality of distinctions between the content of workspace elements." With respect to this term, Seven has incorporated a "content" limitation into the definition. This is another of the broad areas of disagreement between the parties. The court ultimately agrees with Visto on this point. The "content" limitation is an effort to import details from the preferred embodiment into the claims. The plain meaning of "differences" supports a broader meaning and, in the context of these patents, Visto's construction is proper. The court adopts it.

D. First Examination Results/Second Examination Results

With respect to these terms, used in the '192 and the '131 patents, Visto argues that the court should simply construe the term "examination results" and not the words "first" and "second." Visto contends that the term "examination results" means "information regarding one or more workspace elements obtained by examining those workspace elements or related data." Seven argues that the term "first examination results" means "a determination, based on a comparison of a last synchronization signature to first version information stored within a firewall-protected corporate LAN, whether the content of an associated first workspace element stored within the firewall-protected corporate LAN has been modified." Seven further argues that the term "second

examination results" means a determination, based on a comparison of a last synchronization signature, whether the content of an independently modifiable copy of a workspace element has been modified.

Seven asserts that the patentee used these terms in the specification in accordance with only these definitions. Again, these definitions incorporate Seven's "content" limitation such that the examination results indicate whether the "content" of a first workspace element or its copy has been modified. Seven's definition also incorporates several of the limitations of the disclosed embodiments (i.e. firewall-protected corporate LAN). The court rejects this approach and therefore adopts Visto's proposed definition of the term "examination results" with a slight modification and defines it to mean "information regarding one or more workspace elements obtained by examining those workspace elements." The terms "first" and "second" require no construction.

E. Firewall

Visto contends that the term "firewall, " as used in the claims of the '708 patent and the '192 patent, means "software and/or hardware for protecting a network against external threats coming from another network, which allows or blocks packets of information traveling between the networks." Seven argues that the term has a broader meaning and maintains that the court should define the term as "software and/or hardware for protecting an organization's network against external threats, such as hackers, coming from another network, such as the Internet." With respect to this term, it is Visto, rather than Seven, who is attempting to narrow the scope of the claim. Seven's definition is appropriate, as there is no suggestion that the inventors intended to disavow the scope of this claim term. The court therefore adopts Seven's proposed definition and defines "firewall" to mean "software and/or hardware for protecting an organization's network against

external threats, such as hackers, coming from another network, such as the Internet."

F. First Device/Second Device

Visto argues that the term "device" in the context of the '221 patent means "an electronic device for storing workspace data." Seven imports a location limitation and argues that the term "first device" means "an electronic device (e.g. a personal computer) located within a firewall-protected corporate LAN." According to Seven, the term "second device," means "an electronic device capable of storing workspace data located outside a firewall-protected corporate LAN." The court adopts Visto's definition of device, with a slight modification. The term means "an electronic device on which workspace data is stored." "First" and "second" need no construction.

G. General Synchronization Module/First General Synchronization Module/Second General Synchronization Module

The limitation of the general synchronization module appears in the '131, '192 and the '708 patents. Visto proposes this term means "software routines or code that perform the task of determining whether a workspace element and/or an independently modifiable copy thereof has (or have) been modified, based on one or more criteria." Seven proposes that the term "general synchronization module" means "a computer software module, including routines for determining whether the content of a workspace element and/or the content of an independently modifiable copy of the workspace element has been modified, and routines for reacting to a determination of a modification in content, for synchronizing workspace elements." Seven further proposes that "first general synchronization module means "a computer software module, including routines for determining whether the content of the 'first workspace element' has been modified, and routines for reacting to a determination of a modification in content, for synchronizing workspace elements."

Finally, Seven proposes that the term "second general synchronization module" means "a computer software module located on a global server including routines for determining whether the content of the 'second workspace element' (i.e. the independently modifiable copy of the workspace element) has been modified, and routines for reacting to a determination of a modification in content, for synchronizing workspace elements."

The primary differences relate to the inclusion in Seven's definitions of the content limitation previously discussed and, in the "second general synchronization module" the additional inclusion of the global server. The rejects Seven's arguments that the claim language should be limited by implication to the embodiment disclosed in the specification. The court therefore defines the term "general synchronization module" to mean "software routines or code that perform the task of determining whether a workspace element and/or an independently modifiable copy thereof has (or have) been modified, based on one or more criteria." "First" and "second" do not require construction.

H. Independently modifiable copy

Visto proposes that the term "independently modifiable copy" means "a copy of a workspace element capable of being modified independent of the workspace element. The copy does not have to be an exact copy." Seven contends that the term means "a copy of a workspace element stored on a global server that has content capable of being modified independently of any modification to the content of the workspace element."

This term appears throughout the patents. Visto supports its proposed definition, particularly the last sentence, by pointing to language in the specification of the '708 patent which suggests that the copy of the workspace element may be in a different format: "The system includes a first store

for storing a first workspace element in a first format [and] a second store for storing a second workspace element which is an independently modifiable copy of the first workspace element in a second format." '708 Patent, Abstract. As noted above, the '708 patent describes a global translator for maintaining data consistency when data are stored in two locations in different formats. Although the data may be stored in a different format in different locations, Visto's proposed definition appears to suggest a broader meaning of copy than the claim language supports. The court has reviewed carefully the cited portion of the specification and therefore defines the term "independently modifiable copy" to mean "a copy of a workspace element capable of being modified independent of the workspace element. The copy of the workspace element does not have to be in the same format as the workspace element."

I. Last Synchronization Signature

Visto argues that the term "last synchronization signature," as used in the '708 patent, means "information regarding synchronization actions carried out with respect to a workspace element." Seven proposes that the term means "a record computed by the general synchronization module which indicates the last date and time of synchronization."

In support of its proposed definition, Seven argues that the specification implicitly defines the term in this manner. In particular, Seven argues that the specification requires the last synchronization signature to indicate the last date and time of synchronization. However, the portion of the specification relied on actually states that the general synchronization module includes routines "for examining the version information 255 or 150 against a last synchronization signature (*such as* a last synchronization date and time) to determine which versions have been modified." '708 Patent, Col. 7, ll. 23-27 (emphasis added). It is clear from the specification that the requirement

of a last synchronization date and time is exemplary only and not intended to limit the definition of last synchronization signature. At the same time, despite the shortcomings of Seven's proposal, Visto's definition is too broad. Visto's definition would literally include all information about synchronization actions, when it appears that the term is more limited to the most recent synchronization action. The court therefore construes this term to mean "a record computed by the general synchronization module from which the most recent synchronization may be determined."

J. First Memory/Second Memory

Various claims of the '131 patent include the term memory, first memory and second memory. Visto proposes that the court define "memory" to mean "a medium where information can be stored and retrieved." Seven contends that the court should define "first memory" to mean "a medium where information can be stored or retrieved, which is located within a firewall-protected corporate LAN and stores workspace elements." Also, Seven contends that the court should define "second memory" to mean "a medium where information can be stored or retrieved, which is located on a global server and stores independently modifiable copies of workspace elements." The court defines memory pursuant to Visto's proposal to mean "a medium where information can be stored and retrieved." The court is not persuaded that the patents incorporated the various locational limitations included in Seven's proposed definitions. The terms "first" and "second" need no construction.

K. Modifications

Visto contends that the term "modifications" as used in the '131 patent means "any changes related to a workspace element or an independently modifiable copy of the workspace element." Seven argues that the term means "changes in content made to a workspace element or changes in

content made to an independently modifiable copy of the workspace element."

With respect to this term, Seven seeks to incorporate a content limitation into its definition. The court has previously rejected this position and does so again with respect to this term. Visto's definition, however, is also too broad. Visto sponsors a definition of any changes "related to" a workspace element. This is simply broader than the language of the claims will support. Claim 1, limitation (a) is exemplary. That limitation states: "providing first memory storing a first workspace element and first version information for identifying any *modifications made to the first workspace element* since a previous examination." Visto's definition seeks to define modification to include any changes "related to" a workspace element. That definition, if adopted, would eviscerate the more narrow claim language of claim 1(a) which requires modifications to be "made *to* the first workspace element." (emphasis added). The court therefore rejects Visto's proposal and defines the term to mean "changes to a workspace element or an independently modifiable copy of the workspace element."

L. First Workspace Data/Second Workspace Data

Visto asserts that the term "workspace data" as used in claims of the '221 patent, means "data that may include e-mail data, file data, calendar data, user data, etc. Workspace data may also include other types of data such as applications programs." Seven asserts that the term "workspace data" means "a plurality of workspace elements or independently modifiable copies of workspace elements, including corresponding version information, but not including external status indicators that indicate whether workspace elements or independently modifiable copies of workspace elements have been viewed or deleted."

The parties appear to agree that the term "workspace data" had no commonly understood

meaning in the art. The court therefore turns to the specifications for guidance. In doing so, the court observes that Visto's proposed definition comes almost verbatim from the specification. *See* '221 Patent, Col. 5, ll. 45-47: "The LAN comprises a client 165, which includes a base system 170 for synchronizing workspace data 180 (e-mail data, file data, calendar data, user data, etc.) with the global server 115 . . . . Those skilled in the art will recognize that workspace data 180 may include other types of data such as applications programs." It is clear also from the drawings of the various patents that workspace data includes the corresponding version information for each of the workspace elements in workspace data. *See* '192 and '131 Patents, Fig. 2, Blocks 250 and 255; Fig. 3 Blocks 180 and 350; '708 Patent, Fig. 2, Blocks 250, 255; Fig. 3, Blocks 144, 350; '221 Patent, Fig. 7, Blocks 180, 782. The court therefore adopts Visto's proposed definition of the term "workspace data" but adds the additional limitation that workspace data includes the corresponding version information. The term means "data, including corresponding version information, which may include e-mail data, file data, calendar data, user data, etc. Workspace data may also include other types of data such as applications programs."

M. Workspace Element/First Workspace Element

The claims of the '192, '131 and the '708 patents include the term "workspace element." Visto proposes that the term means "a subset of workspace data." Seven proposes that the term means "an email, file, bookmark, or calendar, but not including external status indicators indicating whether the email file, bookmark or calendar as been viewed or deleted by a user." Notwithstanding Seven's proposed definition and arguments, the specification calls for a broader definition of workspace element. For example, in Col. 3 of the '192 patent, ll. 20-32, the patent refers to emails, files, calendars and "user data" and also to "application programs" all of which are further

subdivided into workspace elements. Seven's definition is therefore too limited.

At the claim construction hearing, Seven's counsel urged that, whatever the court's construction of "workspace element," the definition should exclude version information because the specification repeatedly referred to workspace elements and version information as distinct subsets of the broader term "workspace data." The court has carefully reviewed the specifications of the various patents and disagrees with this argument.

In the '192 patent, the description states "It will further be appreciated that the e-mail data 165, file data 170, calendar data 175 and user data 180 may each be divided into workspace elements, *wherein* each workspace element is identified by particular version information 255 . . . . Accordingly, each e-mail, file, calendar, etc. may be referred to as "a workspace element in workspace data." '192 Patent, Col. 3, ll. 26-32 (emphasis added). This language suggests that the workspace element may include version information.

In addition, Figure 6 of the '708 Patent is an illustration of a Global Format Bookmark. The '708 patent describes the translator and illustrates that the translator prepares a global format version of the workspace element including all of the information necessary to translate from Format A to Format B and vice versa. The patent refers to the illustration as "an example bookmark *workspace element* in global format." '708 Patent, Col. 8, ll. 47-48 (emphasis added). The illustration in the patent refers to the "last modified date" as number 650 and the "created date" as number 655. The description of Figure 6 indicates that the translator has incorporated the information which is needed by the synchronization means "such as the last modified date 650." This reference to the exemplary workspace element maintained in global format as including the element's corresponding version information causes the court to reject Seven's proposed definition of the term "workspace element"

to mean something that must be separate and distinct from its version information.

Seven also urges the court to adopt an explicit limitation to this term which would exclude "external status indicators" from the definition of workspace element. External status indicators would apparently include any type of indications (such as a flag) visible to the user that an email had been previously viewed or remained un-read. The court rejects this proposed limitation as well, as it appears to be an argument of the same species as the content limitation previously rejected by the court. There is every reason to suppose that the inventors intended to claim methods and systems for maintaining the consistency of this type of data as any other. The court therefore defines "workspace element" consistent with the breadth of the term permitted by the specification to mean "a subset of workspace data such as an e-mail, file, bookmark, calendar, or applications program which may include version information."

N. Global Server

Visto contends that the term "global server" means "a computer or a related set of computers that mediate connections between data stores within and without a secure network and that may store data." Seven argues that the term means "a server that is outside a corporate LAN and inside a global firewall that is widely accessible by users and stores independently modifiable copies of workspace elements and version information." With respect to this term, Seven has incorporated a location limitation that is found in the preferred embodiment. Seven has also urged that the server be "widely accessible" by users, and has incorporated this limitation into its definition as well. Seven also contends that the global server must store independently modifiable copies of workspace elements and version information.

The parties agree that this term had no accepted meaning in the art; therefore, resort to the

specification is appropriate to glean the proper construction. Read as a whole, the specification defines the global server by the various functions it performs and by its accessibility to a remote user. One function the global server must perform is storing an independently modifiable copy of selected portions of workspace data. In the Summary of the Invention, the specification states "[t]he client is configured to synchronize selected portions of the first set of workspace data (comprising workspace elements) with *the global server, which stores independently modifiable copies of the selected portions*. '221 Patent, Col. 2, ll. 50-54 (emphasis added). In addition, the specification states that the "base system and synchronization agent automatically establish a secure connection therebetween and synchronize the selected portions of the first set of workspace data stored on the client *and the second set of workspace data stored on the global server*." '221 Patent, Col. 2, ll. 10-14 (emphasis added).

The description of the preferred embodiment indicates that "the global server 115 stores workspace data 163, which includes an independently modifiable copy of each selected workspace element in the selected portions of the workspace data." '221 Patent, Col. 6, ll. 23-26. Although the court rejects many of Seven's proposed limitations, one function that must be performed by the global server is the storage of selected portions of the workspace data. It is also clear that the global server must be accessible from remote locations, although adoption of Seven's limitation that the server be "widely accessible" is too limiting. '221 Patent, Col. 7, ll. 6-9. As such, the court defines the term "global server" to mean "a server accessible from remote locations which stores independently modifiable copies of selected portions of workspace data."

O. First Store/Second Store

The '192, '131, and '708 patents use the term "first store" and "second store." Visto

proposes the term "store" means "a storage location for data that may reside on any type of memory device." Seven argues that the term "first store" means "a permanent storage device, such as a magnetic hard disk, but not including temporary memory such as random access memory (RAM) which is located within a firewall-protected corporate LAN and stores workspace elements." According to Seven, the term "second store" means "a permanent storage device, such as a magnetic hard disk, but not including temporary memory such as random access memory (RAM), which is located on a global server and stores independently modifiable copies of workspace elements."

Seven is attempting to particularize the location of the stores as well as the type of the memory that can serve as a store by pointing to the disclosed embodiments. Seven asserts that those of skill in the art would disagree about whether "store" could include all types of memory or whether a more limited definition is appropriate in the context of the patents. The parties agree, however, that a "store" suggests some type of memory device and, in the context of these patents, the court is not convinced that the patentee limited the term as Seven proposes. The court defines the term "store" as a "a storage location for data that may reside on any type of memory device." The court declines to define further the terms "first store" and "second store."

P. Synchronization Agent

Visto contends that "synchronization agent" means "software routines or code that send at least a portion of second version information to a general synchronization module for purposes of synchronization." Seven argues that the term means "a computer software module located on a global server outside the firewall-protected corporate LAN that forwards second version information to a general synchronization module within a firewall-protected corporate LAN." Again, Seven has incorporated the "global server" limitation into its definition of the term and has also limited the

location of the synchronization agent to a place outside a firewall-protected corporate LAN. These limitations are not warranted. As such, the court defines the term "synchronization agent" to mean "software routines or code that send at least a portion of second version information to a general synchronization module for purposes of synchronization."

Q. Translator/Translating

Visto suggests that the term "translator"means "software routines or code that convert information or data in one format to information or data in a second format." Seven contends that the term means "a global translator that translates between a global format and a Format A or between the global format and a Format B, but not directly between Format A and Format B or vice versa, and residing outside a corporate firewall."

This term is found only in the '708 patent. Seven, through its argument, incorporates the word "global" into this term and dictates where in the system the translator must be located. Seven relies heavily on a statement in the prosecution history in which the patentee distinguished a prior art reference (Smith) by describing claims 1 and 17 of the '708 as providing a "system and method for synchronizing two versions of a workspace element across a network using a global translator." According to Seven, the applicants limited the scope of the word translator to a "global translator" as exemplified by the preferred embodiment.

The court's review of the prosecution history reveals that the patentee did not limit the claim term in the manner Seven proposes. Read in context, the statement made in the prosecution history reflects an attempt to distinguish the Smith reference on the grounds that Smith failed to include the second store limitation contained in claims 1 and 17. As such, the court adopts Visto's definition of "translator" to mean "software routines or code that convert information or data in one format to

information or data in a second format." Likewise, the term "translating" as used in various claims of the '708 Patent is defined to mean "converting information of data in one format to information or data in another format."

R. Version Information/Version Indicating Information.

The parties dispute the meaning of the term "version information," as used in the '131, '192, and '708 patents. The court has reviewed the briefs and is persuaded that the term version information means "information that can be used to determine the version of a workspace element." The court adopts the same definition for the term "version indicating information" used in Claim 6 of the '221 Patent.

S. Preferred Version.

The court defines the term "preferred version" to mean "a version of a workspace element that is generated or selected from one or more versions." In the context of these patents, the court rejects Seven's attempt to require the preferred version to be selected or generated only from a modified version of a workspace element or a copy of a modified version of a workspace element.

T. Synchronization-start module

This term is used in various claims of the '192 patent, the '131 patent, and the '708 patent. The court defines synchronization-start module to mean "software routines or code which initiate the synchronization process." The court has previously rejected Seven's attempt to import location limitations into the claim terms when those limitations are otherwise absent from the claims. This term is no different. The intrinsic record reveals that the synchronization-start module includes a group of software routines which instruct the general synchronization module to begin the synchronization process. However, the court does not read the claims or the specification to require,

necessarily, that the synchronization-start module be located within a firewall-protected corporate LAN. *See, e.g.*, '131 Patent, Col. 5, ll. 50-55 ("It will be appreciated that communications with the synchronization agent 126 *preferably* initiate from within the corporate LAN 1135, because the typical corporate firewall prevents in-bound communications and allows out-bound communications.")(emphasis added).

U. Means-plus-function limitations.

There are also several terms written in means-plus-function form. The parties engage in an overriding dispute with respect to these terms. Visto suggests that the search for corresponding structure begins and ends with software "capable of performing" the functions recited in the claim language. Seven counters with its argument that the court should include both the specific software modules described in the specification together with the hardware running the various routines and/or the devices on which certain data is stored. Each is correct by half.

First, Visto rightly notes that software modules can constitutes corresponding structure. This court, in *National Instruments Corporation v. The Mathworks Inc.*, 2:01-CV-11 (E.D. Tex. 2002), held that software modules disclosed in the specification were corresponding structure in the context of § 112 ¶ 6. In that case, the patentee had appended its source code to the application and the source code became a part of the specification for purposes of linking specific software modules to the functions recited in the claims. The court determined that the portions of the source code containing the software modules constituted corresponding structure in the context of those patents.

The view announced in *National Instruments* is consistent with the cases from the Federal Circuit which hold that software capable of performing claimed functions can be corresponding structure under § 112 ¶ 6 if it is clearly linked or associated with performing the function. For

instance, in *Overhead Door Corp. v. Chamberlain Group, Inc.*, 194 F.3d 1261 (Fed. Cir. 1999), the court held that a patent's disclosure of a flow diagram would have been understood by one skilled in the art to represent disclosure of an alternative software embodiment of a switch. This disclosure, coupled with statements in the prosecution history which revealed that the inventors intended to claim both a manual and an electronic embodiment of the switch, led the court to conclude that the district court should have included software as corresponding structure to the switch means limitation in the patent.

In *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205 (Fed. Cir. 2003), the court reversed a district court's decision to include software as corresponding structure when the patent failed to clearly link or associate software with the performance of the claimed function. The district court had concluded, in the context of a limitation which recited the function of "converting" that certain techniques for performing a digital-to-digital conversion were known to those of skill in the art; therefore, a person skilled in the art would therefore have understood software to be a corresponding structure for the converting function. The Federal Circuit reversed and observed that the district court had not made the correct inquiry. According to the court, "[t]he correct inquiry is to look at the disclosure of the patent and determine if one of skill in the art would have understood that disclosure to encompass software for digital-to-digital conversion and been able to implement such a program, not simply whether one of skill in the art would have been able to write such a software program." *Id.* at 1212. Implicit in the court's holding is the recognition that software may constitute a corresponding structure if the disclosure of the patent linked software with the claimed function.

Here, the specification links or associates various software modules and routines contained

therein as performing many of the recited functions, not the hardware running the program.[6] As such, Visto is correct that under some circumstances, software alone is sufficient corresponding structure. However, with respect to some of the limitations of the '221 patent which require a "means for storing," the court concludes that the description requires the inclusion of certain types of memory.

That software may constitute corresponding structure is not to say that Visto's identification of structure is sufficient. Visto's proposed construction of software generally "capable of performing" the various functions is untethered to any specific portion of the specification. The statute provides that claims drafted in means-plus-function form "shall be construed to cover the corresponding structure, material, or acts described in the specification . . . ." 35 U.S.C. § 112 ¶ 6. Although the court has rejected Seven's attempt to import certain hardware into the claim construction, Seven's proposals do identify various specific software modules described in the patent which are associated with the various functions. Visto counters that including these specifics as a part of the corresponding structure "results in overly complex claim constructions where simplicity will do." In the court's view, Visto's argument is not a sufficient justification for ignoring the mandate of the statute. The patentee chose to draft according to § 112 ¶ 6, and the court will therefore identify the particular modules in the specification linked to performing the claimed functions. The court adopts the following constructions of the means-plus-function limitations.

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[6] It may be, of course, that the software has no utility absent running on hardware of some sort. The court's point, however, is that the specific hardware disclosed in the patent is not corresponding structure in the context of several of these claims.

1. Means for generating a preferred version[7]

Claim 10 of the '192 patent requires a "means for generating a preferred version from the first workspace element and from the copy by comparing the first version information and the second version information." Although the re-examination has resulted in the rejection of claims 10 and 11, the examiner has allowed certain claim which depend from claim 10; therefore, the court will construe this term. The specification recites:

> The general synchronization module 425 further includes routines for comparing the version information 124 and the version information 255 to determine if only one or both versions of a particular workspace element have been modified and routines for performing an appropriate synchronizing responsive action.

'192 Patent, Col. 5, ll. 55-61. The corresponding structure for this limitation is the general synchronization module 425.

2. Means for storing the preferred version

In the context of claims 10 and 11 of the '192 patent and claim 16 of the '131 patent, it appears that the patentee used the term "storing" in the sense associated with the transmission of the preferred versions to the two memory stores. '192 Patent, Claim 10; '131 Patent, Claim 16 (both reciting "means for *storing* the preferred version *at the first store and at the second store*." (emphasis added). Accordingly, the court limits the identification of corresponding structure to the software which performs the function. The specification provides:

> The general synchronization module 425 further includes . . . routines for performing an appropriate synchronizing responsive action. . . . Appropriate synchronizing responsive actions may include forwarding the modified version (as the preferred version) of a workspace element in workspace data 185 or forwarding just a compilation of the changes to the other store(s).

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[7] By statute, the court construes all of the claim limitations to cover the structure identified in the specification and equivalents.

'192 Patent, Col. 5, ll. 55-65; '131 Patent, Col. 5, ll. 62-67, Col. 6, ll. 1-5. The corresponding structure is the general synchronization module 425.

3. Means for determining preferred versions

Claim 16 of the '131 patent recites a "means for determining preferred versions based on the first and second examination results." The specification of the '131 patent provides a similar description of the general synchronization module 425 as in the '192 patent. '131 Patent, Col. 5, ll. 62-67, Col. 6, ll. 1-9. Moreover, if reconciliation between two modified versions of a workspace element is needed, the specification describes the functions of a content-based synchronization module 430. '131 Patent, Col. 6, ll. 22-34. Reading the disclosure in the context of the claim language, the court holds that the corresponding structure includes the general synchronization module 425 and the content-based synchronization module 430.

4. Synchronization means

The corresponding structure for this limitation, found in Claims 5, 8, and 9 of the '708 patent, includes the base system 400 (and 146) and the synchronization agent 124. The specification states:

> Network 100 further comprises synchronization means, which includes a base system 146 stored within the LAN 110 and for example on the desktop computer 134. . . . The base system 146 and the synchronization agent cooperate to synchronize selected portions of the workspace data 136 with the workspace data 120.

'708 Patent, Col. 4, ll. 23-30. Figure 4 illustrates the details of the base system and includes the synchronization and other modules included in the base system.

5. Means for storing first workspace data on a first device

Unlike the claims of the '192 and the '131 patent, the '221 patent appears to use the phrase "means for storing" to identify the physical memory which maintains, in a passive sense, the

workspace data. A review of the '221 patent reveals that claim 1 is a methods claim, and it recites as its first two limitations "storing first workspace data on a first device" and "storing second workspace data on a second device." Claim 8, which includes the "means for storing" limitations at issue in this case, is a system claim which corresponds to the method of Claim 1. Limitation 8(a) recites a "means for storing first workspace data on a first device." This claim language suggests that the means for storing is the physical memory structure on a first device. As such, the corresponding structure for this limitation includes the data storage devices 250, 350, and 720.

6. Means for storing second workspace data on a second device

Again, the court is persuaded that the patentee used the word "storing" to refer to the act of passively maintaining data on the second device in memory. The corresponding structure for this limitation, also found in Claim 8 of the '221 patent, includes the data storage devices 250, 350 and 720.

7. Means for determining differences between the first workspace data and the second workspace data

The structure corresponding to this limitation, found in Claim 8 of the '221 patent, includes the general synchronization modules 410 and 835 and the content-based synchronization module 830. The court has not included the synchronization-start module 820 in its identification of corresponding structure because it has determined that module to be enabling structure rather than structure necessary to perform the recited function of "determining differences."

8. Means for storing the differences at a global server

In the context of this claim limitation, the court concludes that the general synchronization modules 410 and 825 and the content-based synchronization module 830 are corresponding structure

because the patent links these structures with performing the function of storing, in the active sense, of the data on the global server storage device. The court is also persuaded that the data storage device 350 on the global server is necessary structure. '221 Patent, Fig. 3.

9. Means for sending the differences from the global server to the second device

The structure corresponding to this limitation, found in Claim 8 of the '221 patent, includes the general synchronization modules 410 and 825, the content-based synchronization module 830 and the communications module 805.

SIGNED this 20th day of April, 2005.

T. JOHN WARD
UNITED STATES DISTRICT JUDGE